

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of	:	SUN, et al.
Serial No.	:	10/578,930
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Art Unit	:	2461
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APPEAL BRIEF
On Appeal from Group Art Unit 2461

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Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed on October 8, 2010 and response under 37 C.F.R. 1.116 filed on June 23, 2010, and in response to the final Office Action dated April 23, 2010 and the Advisory Action dated August 3, 2010.

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I. REAL PARTY IN INTEREST

The real party in interest of the above-identified application is Koninklijke Philips Electronics N.V., the assignee of record, whose assignment is recorded in the USPTO as of May 8, 2006 on three (3) pages beginning at Reel 018097, Frame 0394.

II. RELATED APPEALS AND INTERFERENCES

Appellants are not aware of any pending appeals, judicial proceedings, or interferences which may be related to, directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

- a) Claims 1-19 are pending at the time of filing this Appeal Brief.
- b) Claims 1-19 stand rejected in a final Office Action dated April 23, 2010, and are the subject of this appeal.
- c) Claims 1, 7, 11, and 16 are independent.

IV. STATUS OF AMENDMENTS

The claims listed in section “VIII. Claims Appendix” of this Appeal Brief correspond to the claims as submitted in Appellants’ response filed on June 23, 2010 (in response to the final Office Action dated April 23, 2010) and response filed on January 11, 2010 (in response to the non-final Office Action dated October 9, 2009). No claim amendments have been submitted following the response of January 11, 2010, nor are any amendments pending.

V. SUMMARY OF CLAIMED SUBJECT MATTER¹

The claimed invention, as recited in claim 1, is directed to a method for mitigating P2P (Peer-to-Peer) interferences (Appellants' specification at least at page 10, line 14 – page 11, line 5 and Figs. 6 and 7), performed by a network system, comprising: determining redundant code group information (page 18, line 18-page 19, line 1), according to code group usage information of a cell in which two UEs (User Equipments) are attempting to establish a P2P link camp, and also according to the code group usage information of a cell's adjacent cells (page 19, lines 7-13); and selecting a scrambling code from the redundant code group information and assigning it to the two UEs, so that the two UEs can perform a scrambling operation on P2P signals to be transferred between the two UEs by using the scrambling code (page 21, line 15-page 22, line 6).

The claimed invention, as recited in claim 7, is directed to a method for mitigating P2P (Peer-to-Peer) interferences (Appellants' specification at least at page 10, line 14 – page 11, line 5 and Figs. 6 and 7), performed by a UE (User Equipment), comprising: acquiring code group usage information of a cell where the UE is camping through a cell search procedure (page 22, lines 16-18); reading the code group usage information of adjacent cells through an adjacent cell search procedure (page 22, line 18-page 23, line 1); and sending the code group usage information of the cell where the UE is camping to a network system (Fig. 7, item 210, page 23,

¹ It should be explicitly noted that it is not Appellants' intention that the currently claimed or described embodiments be limited to operation within the illustrative embodiments described below beyond what is required by the claim language. Further description of the illustrative embodiments are provided indicating portions of the claims which cover the illustrative embodiments merely for compliance with requirements of this appeal without intending to read any further interpreted limitations into the claims as presented.

lines 1-2) and also sending the code group usage information of the cell's adjacent cells to the network system (Fig. 7, item 210, page 23, lines 1-2).

The claimed invention, as recited in claim 11, is directed to a network system capable of mitigating P2P (Peer-to-Peer) interferences (Appellants' specification at least at page 10, line 14 – page 11, line 5 and Figs. 6 and 7), comprising: a first determining unit, for determining redundant code group information (page 18, line 18-page 19, line 1) according to code group usage information of a cell where two UEs attempting to establish a P2P link are camping, and also according to the code group usage information of a cell's adjacent cells (page 19, lines 7-13); and a selecting unit, for selecting a scrambling code from the redundant code group information and assigning it to the two UEs (page 21, lines 7-11), so that the two UEs can perform a scrambling operation by using the scrambling code on P2P signals to be transferred between the two UEs (page 21, line 15-page 22, line 6).

The claimed invention, as recited in claim 16, is directed to a UE (User Equipment), comprising: an acquiring unit, for acquiring code group usage information of a cell where the UE is camping through a cell search procedure (page 22, lines 16-18); a reading unit, for reading the code group usage information of adjacent cells through an adjacent cell search procedure (page 22, line 18-page 23, line 1); and a sending unit, for sending the code group usage information of the cell where the UE is camping to a network system (Fig. 7, item 210, page 23, lines 1-2) and also sending the code group usage information of the cell's adjacent cells to the network system (Fig. 7, item 210, page 23, lines 1-2).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Whether claims 1 and 11 are properly rejected under 35 U.S.C. §102(e) as being anticipated by Zeira et al. 2004/0116122 (“Zeira”).
- B. Whether claims 2 and 12 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zeira in view of Buchert et al. 2003/0123524 (“Buchert”).
- C. Whether claims 3 and 13 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zeira in view of Buchert and further in view of Skillermak et al. 2005/0111408 (“Skillermak”).
- D. Whether claims 4-6, 14, and 15 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zeira in view of Buchert and further in view of Das et al. 2003/0192003 (“Das”).
- E. Whether claims 7-9 and 16-18 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zeira in view of Skillermak.
- F. Whether claims 10 and 19 are properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zeira in view of Skillermak and further in view of Das.

VII. ARGUMENT

Appellants respectfully traverse the rejections in accordance with the detailed arguments set forth below.

A. Claims 1 and 11 are not properly rejected under 35 U.S.C. §102(e) as being anticipated by Zeira.

1. Claim 1

Independent claim 1 requires:

A method for mitigating P2P (Peer-to-Peer) interferences, performed by a network system, comprising:

determining redundant code group information, according to code group usage information of a cell in which two UEs (User Equipments) are attempting to establish a P2P link camp, and also according to the code group usage information of a cell's adjacent cells; and

selecting a scrambling code from the redundant code group information and assigning it to the two UEs, so that the two UEs can perform a scrambling operation on P2P signals to be transferred between the two UEs by using the scrambling code. [Emphasis added].

On pages 2 of the Advisory Action dated August 3, 2010, the Examiner alleges that the term “redundant code group information” is not clearly defined in the specification. Therefore, the Examiner broadly interprets the phrase “redundant code group information” as determining any codes of information out of a group of codes of a cell and its adjacent cells in which the two equipments are establishing a communication so long as the codes of information are repeatable or repeatedly (redundantly) used. The Examiner alleges that Zeida, paragraph 0017 discloses the same. Appellants respectfully traverse this line of reasoning.

Contrary to the Examiner's allegation, Appellants respectfully point out that the phrase "redundant code group information" is clearly defined in the specification. For example, page 18 line 18-page 19 line 1 recites "the redundant code group information relates to the code groups not used by the cell where UE1 and UE2 are camping and its adjacent cells."

According to MPEP 2111.01 IV, Appellants are entitled to be their own lexicographer when Appellants' specification clearly set forth the definition of the claim term "redundant code group information." Therefore, the Examiner may not broadly interpret the phrase "redundant code group information" as determining any codes of information out of a group of codes of a cell and its adjacent cells in which the two equipments are establishing a communication so long as the codes of information are repeatable or repeatedly (redundantly) used.

In contrast to Appellants' claim 1, Zeira teaches an inter-cell interference cancellation algorithm which allegedly relates to codes that are used by a cell. For example, Zeira at paragraph [0030] recites "[t]he blind code detectors 50 determine corresponding code matrices used by a particular cell. . . . Each C₁. . . C_L corresponds to one or more codes that are used in a particular cell." Emphasis added. As such, Appellants' claim 1 is distinguished from Zeira because Zeira does not disclose an inter-cell interference cancellation algorithm based at least in part on code groups which are not used by camping on and adjacent cells, as in the redundant code group information of Appellants' claim 1. Therefore, Zeira does not disclose determining redundant code group information, as claimed.

Furthermore, Zeira does not disclose the feature of selecting a scrambling code from the redundant code group information and assigning it to the two UEs. As pointed out above, Zeira discloses an algorithm which allegedly relates to code groups that are used in a particular cell.

However, as pointed out above, Zeira does not disclose redundant code group information.

Since Zeira does not disclose the feature of redundant code group information, Zeira can not disclose selecting a scrambling code from the redundant code group information and assigning it to the two UEs, as required in Appellants' claim 1.

Therefore, Zeira does not anticipate Appellants' claim 1, and the rejection to claim 1 under 35 U.S.C. 102(e) should be reversed.

2. Claim 11

Independent claim 11 differs from claim 1 and requires consideration and interpretation on its own merits. However, claim 11 includes similar patentable features of claim 1 as discussed above. For example, claim 11 recites in part: "a first determining unit, for determining redundant code group information according to code group usage information of a cell where two UEs attempting to establish a P2P link are camping, and also according to the code group usage information of a cell's adjacent cells; and a selecting unit, for selecting a scrambling code from the redundant code group information and assigning it to the two UEs, so that the two UEs can perform a scrambling operation by using the scrambling code on P2P signals to be transferred between the two UEs."

Appellants apply the above arguments for claim 1 with respect to independent claim 11. As such, Appellants respectfully submit that claim 11 is allowable over Zeira and respectfully request the reversal of the rejection of independent claim 11 under 35 U.S.C. 102(e).

B. Claims 2 and 12 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zeira in view of Buchert.

3. Claims 2 and 12

Claims 2 and 12 depend from allowable claims 1 and 11, respectively, and incorporate the features of claims 1 and 11. Furthermore, claims 2 and 12 include additional distinguishing features. The Office Action has cited Buchert to show executing a scrambling code if said UE and said active UE are assigned to the same time slot. However, Buchert does not show or suggest determining redundant code group information and selecting a scrambling code from the redundant code group information and assigning it to the two UEs. Accordingly, Buchert does not cure the deficiencies of Zeira with respect to claims 1 and 11. Furthermore, the final Office Action does not rely on Buchert for disclosing or suggesting the features of determining redundant code group information and selecting a scrambling code from the redundant code group information and assigning it to the two UEs. Therefore, the combination of Zeira and Buchert does not suggest every feature of claims 2 and 12. Thus, Appellants respectfully submit that the rejections of claims 2 and 12 under 35 U.S.C. 103(a), are unfounded and should be reversed.

C. Claims 3 and 13 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zeira in view of Buchert and further in view of Skillermark.

4. Claims 3 and 13

Claims 3 and 13 depend from allowable claims 1 and 11, respectively, and incorporate the features of claims 1 and 11. Furthermore, claims 3 and 13 include additional distinguishing features. Skillermark does not show or suggest determining redundant code group information and selecting a scrambling code from the redundant code group information and assigning it to the two UEs. Accordingly, Skillermark does not cure the deficiencies of the combination of Buchert and Zeira with respect to claims 1 and 11. Furthermore, the final Office Action does not

rely on Skillermark for disclosing or suggesting the features of determining redundant code group information and selecting a scrambling code from the redundant code group information and assigning it to the two UEs. Therefore, the combination of Zeira, Buchert, and Skillermark does not suggest every feature of claims 3 and 13. Thus, Appellants respectfully submit that the rejections of claims 3 and 13 under 35 U.S.C. 103(a), are unfounded and should be reversed.

D. Claims 4-6, 14, and 15 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zeira in view of Buchert and further in view of Das.

5. Claims 4-6, 14, and 15

Claims 4-6 depend from allowable claim 1, and claims 14 and 15 from claim 11. Each dependent claim incorporates the features of either claim 1 or 11. Furthermore, each dependent claim includes additional distinguishing features. Das does not cure the deficiencies of the combination of Buchert and Zeira with respect to claims 1 and 11. Furthermore, the final Office Action does not rely on Das for disclosing or suggesting the features of determining redundant code group information and selecting a scrambling code from the redundant code group information and assigning it to the two UEs. Therefore, the combination of Zeira, Buchert, and Das does not suggest every feature of claims 4-6, 14, and 15. Thus, Appellants respectfully submit that the rejections of claims 4-6, 14, and 15 under 35 U.S.C. 103(a), are unfounded and should be reversed.

E. Claims 7-9 and 16-18 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zeira in view of Skillermark.

6. Claim 7

Appellants' claim 7 recites,

A method for mitigating P2P (Peer-to-Peer) interferences, performed by a UE (User Equipment), comprising:
acquiring code group usage information of a cell where the UE is camping through a cell search procedure;
reading the code group usage information of adjacent cells through an adjacent cell search procedure; and
sending the code group usage information of the cell where the UE is camping to a network system and also sending the code group usage information of the cell's adjacent cells to the network system. (Emphasis added).

In the Advisory Action, the Examiner asserts that the specification indicates an embodiment where communication between two devices is a direct communication without any exchange with the network or base station, yet, claim 7 includes the feature of sending the code group usage information of the cell where the UE is camping to a network system. The Examiner contends that this is a contradiction with the specification.

Appellants respectfully point out that there is no contradiction within the claims. For example, independent claim 7 requires sending the code group usage information of the cell where the UE is camping to a network system, however, nowhere does claim 7 require communication between two devices is a direct communication without any exchange with the network or base station. As such, there is no contradiction within the claims.

The final Office Action cites the combination of Zeira and Skillermak as allegedly disclosing or suggesting the features of claim 7. Appellants respectfully submit that Zeira and Skillermak, separately or in combination, do not disclose or suggest the features of sending the code group usage information of the cell where the UE is camping to a network system and also sending the code group usage information of the cell's adjacent cells to the network system, as set forth in Appellants' claim 7.

Zeira discloses several algorithms for inter-cell interference cancellation. The Advisory Action alleges that Zeira, paragraphs [0017] and [0030] teaches codes that are differentiated by a given cell and its adjacent cells are specifically determined and specific scrambling codes are selected thereafter for communication, and these are communicated with the network system.

However, Zeira does not disclose or suggest a method performed by user equipment (UE) comprising sending code group usage information of cells to the network system. Likewise, Skillermark does not suggest the UE sending code group usage information to the network system.

Furthermore, the feature of sending the code group usage information of the cell where the UE is camping to a network system and also sending the code group usage information of the cell's adjacent cells to the network system would not be obvious to a person having ordinary skill in the art based on the combination of Zeira and Skillermark. For example, Zeira at Fig. 4 and paragraph [0027] discloses an embodiment of an inter-cell interference canceller allegedly for use in reception of high speed downlink packet access, which is in contrast to the feature of Appellants' claim 7 of a method performed by a UE sending code group usage information of a cell to a network system. Also, Skillermark at paragraphs [0027] and [0028] discloses a mobile station (MS), (also referred to as user equipment (UE) as defined by Skillermark at paragraph [0017]), wherein the UE allegedly determines the code group so it can derive the scrambling code, the long basic midamble code, and slot and frame timing of a cell. Upon identifying the long basic midamble code, the downlink scrambling code and cell parameter are also allegedly known. Because Skillermark's UE allegedly derives several items based on the code group, a person having ordinary skill in the art would be led to believe that there would be no further need

for the UE to send the code group to the network system. Therefore, the features of Appellants' claim 7 would not be obvious to a person having ordinary skill in the art based on the combination of Zeira and Skillermark. Accordingly, the rejection of claim 7 under 35 U.S.C. § 103(a) should be reversed.

In addition, the Office Action does not provide any explanation or supporting evidence as to why one of ordinary skill in the art would believe that Skillermark's alleged selected interference cancellation methodologies are related to the method for mitigating P2P (Peer-to-Peer) interferences as claimed because Skillermark is not related to P2P communications. As such, Skillermark does not address the problems of interference related to P2P communications. In contrast to Appellants' claim 7, Skillermark's solution is based on insight that users that are close to a cell boundary are also "close to doing a handover." (See Skillermark at paragraphs [0013] and [0021]). It is generally known that a handover between cells is not the same as P2P communications. Thus, Appellants respectfully submit that a person having ordinary skill in the art would not believe that Skillermark is related to mitigating P2P interference, and thus would have no reason to combine Skillermark with Zeira.

On page 6 of the final Office Action the Examiner simply provides a conclusory statement of "in order to reduce computational complexity and degradation of the performance of the system in an unlimited number of users in the cells, and to increase the quality of service perceived by the users," in support of the combination of references in making this rejection. This conclusory statement does not meet the requirements under the MPEP and the KSR decision. The Supreme Court stated, "*there must be some articulated reasoning* with some rational underpinning to support the legal conclusion of obviousness." *KSR Int'l v. Teleflex Inc.*,

127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (emphasis added)). While the proper inquiry for motivation is not limited to the overly rigid teaching suggestion motivation (TSM) test and the Examiner cannot simply Leapfrog to a conclusory statement. As pointed out in the recently issued updated Examiner Guidelines it remains Office policy that appropriate factual findings are required in order to apply the enumerated rationales properly. The Examiner has not made the necessary factual findings and associated reasoning that are crucial to a proper obviousness determination according to the instructions provided in the MPEP.

Accordingly, Appellants respectfully submit that the Office Action has not presented a prima facie case of obviousness and the rejection to claim 7 should be reversed.

7. Claim 16

Independent claim 16 differs from claim 7 and requires consideration and interpretation on its own merits. However, claim 16 includes similar patentable features of claim 7 as discussed above. For example, claim 16 recites in part: “a sending unit, for sending the code group usage information of the cell where the UE is camping to a network system and also sending the code group usage information of the cell’s adjacent cells to the network system.”

Appellants apply the above arguments for claim 7 with respect to independent claim 16. As such, Appellants respectfully submit that claim 16 is allowable over the combination of Zeira and Skillermark and respectfully request the reversal of the rejection of independent claim 16 under 35 U.S.C. 103(a).

8. Claims 8, 9, 17, and 18

Claims 8 and 9 depend from allowable claim 7, and claims 17 and 18 from claim 16, respectively. Each dependent claim incorporates the features of either claim 7 or 16. Furthermore, each dependent claim includes additional distinguishing features. Skillermark does not cure the deficiencies of Zeira with respect to claims 7 and 16. Furthermore, the final Office Action does not rely on Skillermark for disclosing or suggesting the features of sending the code group usage information of the cell where the UE is camping to a network system and also sending the code group usage information of the cell's adjacent cells to the network system. Therefore, the combination of Zeira, and Skillermark does not suggest every feature of claims 8, 9, 17, and 18. Thus, Appellants respectfully submit that the rejections of claims 8, 9, 17, and 18 under 35 U.S.C. 103(a), are unfounded and should be reversed.

F. Claims 10 and 19 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Zeira in view of Skillermark and further in view of Das.

9. Claims 10 and 19

Claims 10 and 19 depend from allowable claims 7 and 16, respectively, and incorporates the features of either claim 7 or 16. Furthermore, claims 7 and 16 includes additional distinguishing features. Das does not cure the deficiencies of the combination of Zeira and Das with respect to claims 7 and 16. Furthermore, the final Office Action does not rely on Das for disclosing or suggesting the features of sending the code group usage information of the cell where the UE is camping to a network system and also sending the code group usage information of the cell's adjacent cells to the network system. Therefore, the combination of Zeira, Skillermark, and Das does not suggest every feature of claims 10 and 19. Thus, Appellants

respectfully submit that the rejections of claims 10 and 19 under 35 U.S.C. 103(a), are unfounded and should be reversed.

CONCLUSION

In light of the above, Appellants respectfully submit that the rejections of claims 1-19 are in error, legally and factually, and must be reversed.

Respectfully submitted,

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VIII. CLAIMS APPENDIX

1. (previously presented) A method for mitigating P2P (Peer-to-Peer) interferences, performed by a network system, comprising:

determining redundant code group information, according to code group usage information of a cell in which two UEs (User Equipments) are attempting to establish a P2P link camp, and also according to the code group usage information of a cell's adjacent cells; and

selecting a scrambling code from the redundant code group information and assigning it to the two UEs, so that the two UEs can perform a scrambling operation on P2P signals to be transferred between the two UEs by using the scrambling code.

2. (previously presented) The method of claim 1, further comprising:

measuring a relative position between said two UEs and each of a plurality of other active UEs in a communication state; the two UEs are in the cell where said two UEs are camping and each of the other active UEs are in a communication state with adjacent cells;

if at least one of said two UEs causes radio interference with at least one of said active UEs according to the relative position, further determining whether said UE and said active UE are assigned in a same timeslot; and

wherein said selecting a scrambling code is executed if said UE and said active UE are assigned in the same timeslot.

3. (previously presented) The method of claim 2, wherein the determining the redundant code group information includes:

receiving the code group usage information of said camping cell and its adjacent cells transmitted by said two UEs; and

determining said redundant code group information according to said code group usage information.

4. (previously presented) The method of claim 2, wherein the determining the redundant code group information includes:

determining the redundant code group information according to the code group usage information pre-assigned to said camping cell and its adjacent cells.

5. (previously presented) The method of claim 2, wherein the measuring a relative position includes:

detecting whether said two UEs fall within a radio range of each of said active UEs; and detecting whether each of said active UEs falls within the radio range of said two UEs.

6. (previously presented) The method of claim 2, further comprising:

reclaiming said scrambling code when P2P communication ends.

7. (previously presented) A method for mitigating P2P (Peer-to-Peer) interferences, performed by a UE (User Equipment), comprising:

acquiring code group usage information of a cell where the UE is camping through a cell search procedure;

reading the code group usage information of adjacent cells through an adjacent cell search procedure; and

sending the code group usage information of the cell where the UE is camping to a network system and also sending the code group usage information of the cell's adjacent cells to the network system.

8. (previously presented) The method of claim 7, further comprising:

receiving a scrambling code assigned by said network system, the scrambling code being assigned to the UE by said network system through selecting from redundant code group information determined by said network system according to said code group usage information.

9. (previously presented) The method of claim 8, further comprising:

performing a scrambling operation on P2P signals to be sent by the UE by using said scrambling code; and
sending the scrambled signals to another UE having established a P2P link with the UE.

10. (previously presented) The method of claim 8, further comprising:
receiving the scrambled P2P signals from another UE having established a P2P link with the UE, wherein the scrambled P2P signals are scrambled by the other UE by using a scrambling code assigned by said network system; and
de-scrambling the scrambled P2P signals to obtain information from said other UE by using said scrambling code assigned to the UE.

11. (previously presented) A network system capable of mitigating P2P (Peer-to-Peer) interferences, comprising:

a first determining unit, for determining redundant code group information according to code group usage information of a cell where two UEs attempting to establish a P2P link are camping, and also according to the code group usage information of a cell's adjacent cells; and
a selecting unit, for selecting a scrambling code from the redundant code group information and assigning it to the two UEs, so that the two UEs can perform a scrambling operation by using the scrambling code on P2P signals to be transferred between the two UEs.

12. (previously presented) The network system of claim 11, further comprising:

a measuring unit, for measuring a relative position between said two UEs and each of other active UEs in a communication state in the cell where said two UEs are camping and its adjacent cells; and

a second determining unit, for when at least one of said two UEs causes radio interference with at least one of said active UEs, further determining whether at least one of said two UEs and at least one of said active UEs are assigned in the same timeslot according to the relative position;

said selecting unit, for selecting said scrambling code from said redundant code group information when the second determining unit determines that at least one of said two UEs and at least one of said active UEs are assigned in a same timeslot.

13. (previously presented) The network system of claim 12, further comprising:
 - a receiving unit, for receiving the code group usage information of said camping cell and said camping cell's adjacent cells transmitted by said two UEs;
 - said first determining unit, for determining said redundant code group information according to said code group usage information.

14. (previously presented) The network system of claim 12, wherein said first determining unit determines the redundant code group information according to the code group usage information pre-assigned for said camping cell and said camping cell's adjacent cells.

15. (previously presented) The network system of claim 12, wherein said measuring unit, for measuring whether said two UEs fall within the radio range of each of said active UEs, and measuring whether each of said active UEs falls within the radio range of said two UEs.

16. (previously presented) A UE (User Equipment), comprising:
 - an acquiring unit, for acquiring code group usage information of a cell where the UE is camping through a cell search procedure;
 - a reading unit, for reading the code group usage information of adjacent cells through an adjacent cell search procedure; and
 - a sending unit, for sending the code group usage information of the cell where the UE is camping to a network system and also sending the code group usage information of the cell's adjacent cells to the network system.

17. (previously presented) The UE of claim 16, further comprising:
 - a receiving unit, for receiving a scrambling code assigned by said network system, the scrambling code being assigned to the UE by said network system through selecting from

redundant code group information determined by said network system according to said code group usage information.

18. (previously presented) The UE of claim 17, further comprising:

a scrambling unit, for performing a scrambling operation on P2P (Peer-to-Peer) signals to be sent by the UE by using the scrambling code;

said sending unit sending the scrambled signals to the other UE having established a P2P link with the UE.

19. (previously presented) The UE of claim 17, wherein, said receiving unit receives scrambled P2P (Peer-to-Peer) signals from another UE having established a P2P link with the UE, the scrambled P2P signals are scrambled by the other UE by using a scrambling code assigned by said network system; the UE further comprising:

a de-scrambling unit, for de-scrambling said scrambled P2P signals to obtain information from said other UE by using said scrambling code assigned to the UE.

IX. EVIDENCE APPENDIX

No evidence has been submitted pursuant to §§ 1.130, 1.131, or 1.132 of this title nor any other evidence entered by the examiner and relied upon by Appellants in the appeal.

X. RELATED PROCEEDINGS APPENDIX

Appellants are not aware of any appeals or interferences related to the present application.